Published in final edited form as:
Int J Eat Disord. 2011 May ; 44(4): 369–375. doi:10.1002/eat.20824.

College Students' Perceptions of Individuals with Anorexia and Bulimia Nervosa

Natalie Wingfield, B.S., **Nichole Kelly, M.S.**, **Kasey Serdar, M.S.**, **Victoria A. Shivy, Ph.D.**, and **Suzanne E. Mazzeo, Ph.D.**
Virginia Commonwealth University

Abstract

Objective—Eating disorders (EDs) are highly stigmatized conditions. The current study explored factors hypothesized to influence this stigmatization including ethnicity, gender, ED subtype, and proposed etiology.

Methods—Undergraduates (*N*=235) read scenarios depicting fictional characters varying on ethnicity, gender ED subtype, and etiology. Participants reported perceptions of each character, and completed the EAT-26 and the Level-of-Contact scale.

Results—Characters with BN were viewed as more responsible for their ED and more self-destructive than those with AN, who were viewed as more self-controlled. Characters with a sociocultural etiology were rated as most likely to recover. Characters with a biological etiology were viewed as more likeable than characters with an ambiguous etiology. Characters in the ambiguous group were viewed as more self-destructive, more responsible for their ED, and less self-controlled. Differences in participants' perceptions of the characters also emerged when examining ethnicity and gender. Finally, participants' own ED symptoms and their level of contact with EDs were associated with viewing characters as more similar and self-controlled.

Discussion—Findings highlight the need for increased education about ED etiology and course.

Individuals with eating disorders (EDs) are vulnerable to stigmatization or blame for their conditions.[1–4] This stigmatization can harm both the affected individual (e.g., discrimination, interpersonal distance), [1–4] as well as his/her family[5,6] and is associated with treatment avoidance.[7] The specific reasons for the stigmatization of EDs remain relatively unknown. Research has examined whether ED stigmatization is influenced by the proposed etiology,[8] or by familiarity with individuals affected by these conditions.[1,9] However, little is known about the influence of ED subtype (anorexia nervosa, AN, or bulimia nervosa, BN), ethnicity, and gender on the stigmatization of individuals with these diagnoses. The purpose of this study was to examine how characteristics of: 1) the individual with an ED (ethnicity, gender), 2) the diagnosis (subtype, proposed etiology), and 3) the perceiver (gender, ethnicity, ED symptomatology, previous contact with individuals with EDs) influence stigmatization. The following sections briefly outline the rationale for this study.

Stigmatization of EDs

Several studies have examined perceptions of people with EDs. Crisp et al.[1] found that individuals with EDs generally were viewed less negatively than those with schizophrenia, alcoholism, or drug addiction. However, 38.1% of participants thought that individuals with EDs could, "pull themselves together" (p. 5). Individuals with ED also were rated as more personally responsible for their illness than individuals with the other diagnoses (with the exception of addiction). Finally, EDs were viewed as the disorder with the best recovery rate. This perception contrasts sharply with data indicating that EDs are chronic conditions

with poor outcomes.[10] Crisp and colleagues[2] repeated this survey five years later and obtained very similar results.

In a related study, Stewart et al.[4] examined perceptions of characters with various conditions (i.e., AN, schizophrenia, asthma) and a healthy control. The character with AN was considered most responsible for her condition and better able to "pull [herself] together" (p. 322). A subsequent study[9] compared perceptions of individuals with AN, mononucleosis, depression, and schizophrenia. Respondents indicated that they would feel less comfortable interacting with an individual with AN compared to individuals with mononucleosis or depression.

Women's perceptions of individuals with EDs also were examined in research conducted by Mond et al.[11,12] These investigators used vignettes of characters with symptoms meeting criteria for either BN[11] or AN.[12] The majority of individuals in both studies reported that it would be highly distressing to have these conditions.[11,12] However, across studies, participants with greater self-reported ED symptoms were more likely to endorse the item stating that "it might not be too bad" to have the problem depicted (p. 302,[11] p. 252[12]). Further, 20.4% of the sample reported admiration for the character's "ability to control her weight" (p. 525).[12]

Mond et al.'s results[12] also suggest that individuals with EDs are perceived negatively. For example, 23.6% of the sample endorsed at least moderate agreement with a statement indicating that the character with AN ("Lucy") "has only herself to blame for her present condition" (p. 525). Moreover, 63.2% indicated they were either unwilling or had mixed feelings about interviewing Lucy for a job; 31.6% were unwilling or unsure about renting her an apartment, and 33.6% found Lucy's behavior moderately to extremely irritating.

Ethnicity, Gender, and Stigmatization of EDs

Research has not investigated how gender and ethnicity influence ED stigmatization. However, one study found that EDs were under-identified in African American and Hispanic women.[13] Specifically, undergraduates read one of three scenarios about a 16-year old, "Mary," with ED symptoms. The only difference among the scenarios was "Mary's" ethnicity (White, Hispanic or African American). Participants completed the Eating Disorder Inventory (EDI) the way they believed Mary would. Although participants' EDI responses indicated that they recognized "Mary's" ED symptoms regardless of her ethnicity, they were most likely to identify her problem as an ED when she was depicted as White, suggesting that ethnic stereotyping might play a role in the under-recognition of EDs in African American and Hispanic women.

Previous research has not examined ED stigmatization in men. Yet both AN and BN affect men,[17] and occur disproportionately among gay men.[15] Compared to heterosexual men, gay men also more frequently report subthreshold ED symptomatology, such as body dissatisfaction and concern about becoming overweight.[16] The current study examined whether participants identified a link between sexual orientation and EDs.

ED Etiology and Stigmatization

Beliefs regarding ED etiology also might play an important role in stigmatization of these conditions. One study examined this hypothesis in a sample of nursing students.[8] Students read an article describing either biological or sociocultural causes for AN and then completed measures assessing their beliefs about individuals with the disorder. Participants who received information about biological causes for EDs viewed people with AN as less responsible for their condition. One possible limitation of this study, however, is the fact that only nursing students participated. These students might be more knowledgeable about the

biology of EDs than students in other non-medical areas of study. Thus, the current study further examined the influence of beliefs regarding ED etiology and stigmatization in a more general undergraduate population.

Interpersonal Contact and Stigmatization of EDs

Crisp[2] and Stewart et al.[9] found that negative perceptions of EDs were less common among individuals who knew someone with these conditions. However, other studies[8,17] have not identified a connection between stigmatization and interpersonal contact. Given these inconsistencies, the current investigation examined further the relation between level of contact and stigmatization of individuals with EDs.

Summary and Hypotheses

This study's aim was to examine factors influencing stigmatization of individuals with EDs. More specifically, we explored whether providing information regarding affected individuals' gender, ethnicity, ED subtype or ED etiology influenced the degree to which they were stigmatized. It was hypothesized that: 1) characters whose EDs were described as having biological etiologies would be viewed more favorably than those with other etiological explanations; and 2) participants' level of contact with individuals with EDs and their own ED symptomatology would be inversely associated with their stigmatization of individuals with these conditions. Differences in perceptions based on characters' and participants' gender and ethnic group membership also were examined, although no specific hypotheses were proposed regarding these potential differences, as previous literature in this area is sparse.

Method

Participants

Participants (N = 275) were recruited from psychology classes at a public university in the southeastern United States. Four participants completed less than 60% of the survey and 36 answered two or more validity items incorrectly; their data were excluded. The mean age of the final sample (N = 235, 72.8% female) was 20.21 years (SD = 3.74); 57.4% were White, 20% African American, 13.2% Asian, 3.8% Hispanic; 4.3% were of other ethnicities.

Measures

Level-of-Contact Report (LOC)—This measure (adapted from Holmes et al.[18]) assessed the degree of contact a participant has had with EDs. Items present situations varying in the level of contact. A participant's score is the rank of the most intimate item s/he endorses. This measure's reliability and validity were supported in previous research with college students.[19]

ED Scenarios—Participants were presented with 16 scenarios depicting fictional characters manifesting symptoms of either AN or BN (Appendix A). Depictions varied on the basis of characters' gender, ED subtype (AN or BN), ethnicity (African American or White) and etiology (genetic, sociocultural or ambiguous). Attention was not directed toward these groupings. Scenarios were designed to be of approximately equal word length and complexity.

Attribute Rating Scales (ARS)—After reading each scenario, participants completed items assessing the character's 1) likeability, 2) responsibility for his/her ED, 3) similarity to participant, 4) sexual orientation, 5) ease of recovery, 6) self-control, and 7) self-destructiveness. Responses ranged from strongly disagree (1) to strongly agree (5). Scores

were averaged to account for unequal gender group sizes. A validity measure (which asked participants to match names with the corresponding scenario) was given at the end of the final questionnaire.

The Eating Attitudes Test (EAT-26)—The EAT-26 assessed participants' ED symptomatology. This measure yields internally consistent and valid scores.[20,21]

Procedure

The study was conducted online. Participants were informed that this study was exploring perceptions of people with mental illnesses. They also were told their participation was voluntary, they were free to withdraw at any time, and their data were anonymous. After completing the measures, participants received course credit for participating, if applicable.

Statistical Analysis

First missing data were evaluated. A participant failed to complete one item on the EAT-26 and two participants omitted one ARS item. Item means were imputed for missing values. An independent samples t-test and chi-square analyses examined differences between participants whose data were included and those dropped due to poor performance on the validity test. Spearman and Pearson correlations assessed the relation between participants' contact with EDs (measured by the LOC) and ED symptoms (measured by the EAT-26), as well as their perceptions of the characters (measured by the ARS). Multivariate analyses of variance (MANOVAs) assessed differences in participants' perceptions of the characters. In these analyses, the dependent variables (DVs) were the ARS items. One MANOVA was conducted for each of six independent variables (IVs): characters' gender, characters' ethnicity, etiology of characters' EDs, subtype of characters' EDs, participants' gender, and participants' ethnicity. See Table 1 for all means. An alpha level of 0.05 was used for all statistical tests.

Results

We first examined differences between participants excluded due to their responses to the validity items and those who answered these items correctly. An independent samples *t-test* showed no age differences between these two groups ($t(268) = -0.36$, $p > .05$). Chi-square tests of independence also did not detect differences between these groups in ethnicity ($\chi^2(4) = 4.99$, $p > .05$) or gender ($\chi^2(1) = 1.4$, $p > .05$).

Fictional Character Traits

Gender—There was a significant difference between respondents' perceptions of male and female characters, $F(7, 462)=2.96$, $p < .005$; Wilks' Lambda=.96; partial eta^2 =.04. Female characters were rated as more similar to participants than male characters ($F(1, 468) = 11.00$, $p < .001$; partial eta^2 = .02). In addition, male characters were considered more likely to recover than females ($F(1, 468) = 6.93$, $p < .009$; partial eta^2 = .02).

Ethnicity—Of note, only ratings for female characters were used in this analysis because male characters did not vary on ethnicity (i.e., all male characters were described as White). Results suggest that characters' ethnicity did not significantly impact respondents' perceptions, $F(7, 462) = 1.47$, $p > .05$; Wilks' Lambda = .98; partial eta^2 = .02.

ED Subtype—There was a significant difference in participants' perceptions of characters with AN vs. BN, $F(7, 462) = 6.24$, $p < .001$; Wilks' Lambda = .91; partial eta^2 = .09. Characters with BN were seen as more responsible for their condition $F(1, 468) = 34.86$, $p < .001$; partial eta^2 = .07, and more self-destructive, $F(1, 468) = 8.43$, $p < .004$; partial eta^2

= .02, than individuals with AN. Individuals with AN were seen as having more self-control, $F(1, 468) = 6.26$, $p < .013$; partial eta^2 = .01, than individuals with BN.

Etiology—There also were differences in respondents' perceptions of the characters based on proposed ED etiology, $F(14, 1392) = 9.24$, $p < .001$; Wilks' Lambda = .84; partial eta^2 = .09. A post-hoc Scheffé test found that characters whose EDs were described as biological in origin were considered more likeable than those with an ambiguous etiology, $F(2, 702) = 3.56$, $p < .05$; partial eta^2 = .01. Characters whose EDs were described as having an ambiguous etiology were rated most responsible for their conditions, followed by those with sociocultural etiologies, $F(2, 702) = 3.57$, $p < .001$; partial eta^2 = .12. Characters whose disorders were biological in etiology were rated least responsible. Characters with sociocultural etiologies were considered most likely to recover, followed by individuals with ambiguous and biological etiologies, respectively, $F(2, 702) = 2.42$, $p < .01$; partial^2 = .02. Individuals with biological etiologies were rated as having the most self-control, followed by individuals with sociocultural etiologies and individuals with ambiguous etiologies, $F(2, 702) = 5.99$, $p < .01$; partial eta^2 = .01. Characters with ambiguous etiologies were rated highest on self-destructiveness, followed by characters with sociocultural and biological etiologies, $F(2, 702) = 5.03$, $p < .001$; partial eta^2 = .03. Proposed etiology of the characters' EDs was not associated with participants' perceptions of them as gay or lesbian, nor was it associated with perceived similarity to the rater.

Participant Traits

Gender—There was a significant difference between male and female participants' perceptions of characters, $F(7, 225) = 6.81$, $p < .001$; Wilks' Lambda = .83, partial eta^2 = .18, on the following variables: likeability, $F(1, 231) = 9.08$, $p < .003$; partial eta^2 = .04, likelihood of recovery, $F(1, 231) = 18.89$, $p < .001$; partial eta^2 = .08, and self-destructiveness, $F(1, 231) = 8.15$, $p < .005$; partial eta^2 = .03. Women perceived the characters as more likeable, more self-destructive, and less likely to recover than male participants.

Ethnicity—Participants' ethnicity was significantly associated with raters' perceptions, $F(7, 174) = 3.91$, $p < .001$; Wilk's lambda = .86; partial eta^2 = .14. Specifically, differences in perceptions emerged between White and African American participants on the following ratings: responsibility, $F(1, 180) = 3.23$, $p < .016$; partial eta^2 = .03, control, $F(1, 180) = 7.51$, $p < .007$; partial eta^2 = .001, and similarity, $F(1, 180) = 20.25$, $p < .001$; partial eta^2 = .10. White participants described those with EDs as less responsible for their disorder, having more self-control, and more similar to themselves, compared to African American participants.

Additional Analyses—Additional MANOVAs were performed to determine whether there were differences in males' and females' ratings of the characters based on their gender. The pattern of significant findings mirrored the outcomes obtained in previous analyses. The only notable difference was that participants were significantly more likely to rate same-gender characters as similar to themselves ($F(2, 178) = 9.87$, $p < .001$; partial eta^2 = .10). Differences in African Americans' and Whites' perceptions of the characters based on their ethnicity were also explored. In this case, the pattern of significant outcomes was identical to that described in the previous paragraph. No other significant differences based on character and participant gender or ethnicity were noted. Overall, these findings suggest that the ethnicity of the character did not have a significant impact on participants' perceptions. However, participants' ethnicity and gender did have some influence on views of EDs.

ED Symptoms—There was a moderate, positive correlation between EAT-26 scores and participants' perceptions of characters' similarity to themselves (r = .35, p < .01). There was also a small, positive, correlation between EAT-26 scores and ratings of characters' self-control (r =.16, p < .05). There were no other significant associations between EAT-26 scores and ARS items.

Level of Contact—There was a small, positive, correlation between LOC scores and the item, "This person is similar to me," (r = .17, p < .01), suggesting that participants with greater previous contact with people with EDs perceived the characters as more similar to themselves. There were no other significant associations between LOC scores and ARS items.

Discussion

Current findings highlight the potential for stigmatization of individuals with EDs, and the need for education and more accurate media portrayals of EDs to decrease biases that can result from a lack of understanding of these conditions. For example, participants believed it would be easier for male characters to recover from an ED than females. This belief might have been influenced by the stereotype that EDs only affect women,[22] and suggests that the severity of these conditions might be under-recognized among men. Moreover, compared to females, males thought ED recovery was easier to achieve. The belief that EDs are relatively easy to overcome is consistent with earlier research[1] although gender differences were not previously examined. Perhaps men underestimate the often chronic nature of EDs because they are less likely to be directly affected by AN or BN. It is also noteworthy that no differences were found between male and female characters on the item addressing sexual orientation. This suggests that this sample does not consider EDs in males as conditions only affecting gay men, despite reported prevalence values.[15]

Findings regarding the influence of ED subtype (AN or BN) on perceptions of affected individuals further highlight the potential for stigmatization. Specifically, characters with BN (vs. AN) were considered more responsible for their condition and more self-destructive. Individuals with AN were perceived as having more self-control than those with BN. These differences might be related to the behaviors associated with each condition. The restriction associated with AN might be seen as requiring significant self-control. In contrast the purging behaviors associated with BN might be considered less socially acceptable. Such negative stereotypes of BN might inhibit treatment-seeking among affected individuals.[7]

The influence of proposed etiology on perceptions of affected individuals was also noteworthy. Overall, characters with biological etiologies were rated least responsible for their condition, least self-destructive, and least likely to recover. Characters with sociocultural etiologies were rated as more responsible for their condition, more self-destructive, and more likely to recover than characters with a biological etiology. Also, characters whose etiologies were described ambiguously were viewed least favorably overall. These results are consistent with Crisafulli et al.'s[8] finding that participants provided with sociocultural explanations (vs. biological) for EDs viewed individuals as more personally responsible for their condition. Current findings are also similar to those of research conducted on other health conditions (e.g., HIV[23]) which indicated that individuals whose responsibility for their illness is unclear are viewed nearly as negatively as those directly responsible for their condition.

In everyday life, individuals are unlikely to know the cause of a specific person's ED. Results of the current study suggest that in cases where little information is known, observers would likely assume that an individual with an ED is responsible for her or his

condition. If the general public were more aware of the possible biological underpinnings of EDs, these conditions might be less stigmatized and more frequently recognized as legitimate health issues.

The current study's results regarding the influence of ethnicity on perceptions of individuals with EDs are mixed. There were no differences in perceptions of White and African American characters. This is particularly interesting as EDs are often under-recognized in African-American women[13]. However, several differences emerged between White and African American participants. More specifically, compared to African Americans, White participants were more likely to rate the characters, regardless of their ethnicity, as less responsible for their ED, more self-controlled, and more similar to themselves. These differences in opinions among participants might reflect cultural differences in the conceptualization of disordered eating behaviors and should be explored further. Differences in ratings of similarity could simply be attributable to the ethnic distribution of the characters and participants, the majority of whom were White.

Participants' responses were likely at least partially influenced by media portrayals of individuals with EDs. Media are the public's main source of information regarding EDs,[24] yet these outlets tend to minimize the severity of these conditions.[25,26] Results of the current study highlight the urgent need for public education regarding the severity and public health significance of EDs. Such efforts could ultimately reduce stigma and improve rates of treatment-seeking for individuals with these chronic conditions.[7,27,28]

Limitations of this study should be acknowledged. One is the use of self-report measures. Participants might have responded in ways that they believed to be more socially desirable. An additional weakness is that this undergraduate sample is not representative with respect to age and education. Further, this study did not include binge eating disorder (BED). Despite these weaknesses, the study has a number of strengths. It extends previous research by addressing stigma of EDs across four constructs (gender, ethnicity, type of disorder, and etiology). Also, this study's sample was relatively ethnically diverse, which increases the generalizability of these results. Future research should assess perceptions of other forms of disordered eating (including BED). Researchers should also investigate the effectiveness of public health campaigns addressing the significance of EDs across genders and ethnic groups.

Acknowledgments

This research was supported in part by the National Institutes of Health Grants MH-068520 (Mazzeo).

References

1. Crisp AH, Gelder MG, Rix S, Meltzer HI, Rowlands OJ. Stigmatisation of people with mental illness. Br J Psychiatry. 2000; 177:4–7. [PubMed: 10945080]
2. Crisp A. Stigmatization of and disctimination against people with eating disorders including a report of two nationwide surveys. Eur Eat Disord Rev. 2005; 13:147–52.
3. Mond JJ, Hay PJ, Rodgers B, Owen C, Mitchell J. Correlates of the use of purging and non-purging methods of weight control in a community sample of women. Aust N Z J Psychiatry. 2006; 40(2): 136–42. [PubMed: 16476131]
4. Stewart M, Keel PK, Schiavo RS. Stigmatization of anorexia nervosa. Int J Eat Disord. 2006; 39:320–5. [PubMed: 16523470]
5. Dimitropoulos G, Carter J, Schachter R, Woodside DB. Predictors of family functioning in carers of individuals with anorexia nervosa. Int J Eat Disord. 2008; 41(8):739–47. [PubMed: 18570190]

6. Whitney J, Haigh R, Weinman J, Treasure J. Caring for people with eating disorders: factors associated with psychological distress and negative caregiving appraisals in carers of people with eating disorders. Br J Clin Psychol. 2007; 46(Pt 4):413–428. [PubMed: 17535529]
7. Hepworth N, Paxton SJ. Pathways to help-seeking in bulimia nervosa and binge eating problems: a concept mapping approach. Int J Eat Disord. 2007; 40:493–504. [PubMed: 17573682]
8. Crisafulli MA, Von Holle A, Bulik CM. Attitudes toward anorexia nervosa: the impact of framing on blame and stigma. Int J Eat Disord. 2008; 41:333–339. [PubMed: 18186057]
9. Stewart M, Schiavo RS, Herzog DB, Franko DL. Stereotypes, Prejudice and Discrimination of Women with Anorexia Nervosa. Eur Eat Disord Rev. 2008; 16:311–318. [PubMed: 18240121]
10. Walsh BT, Klein DA. Eating disorders. Int Rev Psychiatry. 2003; 15:205–216. [PubMed: 15276960]
11. Mond J, Hay P, Rodgers B, Owen C, Beumont P. Beliefs of women concerning the severity and prevalence of bulimia nervosa. Soc Psychiatry Psychiatr Epidemiol. 2004; 39(4):299–304. [PubMed: 15085332]
12. Mond JM, Robertson-Smith G, Vetere A. Stigma and eating disorders: is there evidence of negative attitudes towards anorexia nervosa among women in the community? J Ment Health Adm. 2006; 15:519–32.
13. Gordon KH, Perez M, Joiner TE Jr. The impact of racial stereotypes on eating disorder recognition. Int J Eat Disord. 2002; 32:219–24. [PubMed: 12210665]
14. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4. Washington, DC: Author; 2000. text-revision
15. Feldman MB, Meyer IH. Eating disorders in diverse lesbian, gay, and bisexual populations. Int J Eat Disord. 2007; 40(3):218–26. [PubMed: 17262818]
16. Kaminski PL, Chapman BP, Haynes SD, Own L. Body image, eating behaviors, and attitudes toward exercise among gay and straight men. Eat Behav. 2005; 6(3):179–87. [PubMed: 15854864]
17. Holliday J, Wall E, Treasure J, Weinman J. Perceptions of illness in individuals with anorexia nervosa: a comparison with lay men and women. Int J Eat Disord. 2005; 37:50–6. [PubMed: 15690466]
18. Holmes PE, Corrigan PW, Wiliams P, Conor J, Kubiak MA. Changing attitudes about schizophrenia. Schizophr Bull. 1999:25.
19. Corrigan PW, Edwards AB, Qreen A, Thwart SL, Perm DL. Prejudice, social distance, and familiarity with mental illness. Schizophr Bull. 2001:27.
20. Garner D, Olmstead M, Bohr Y, Garfinkel P. The Eating Attitudes Test: Psychometric features and clinical correlates. Psychol Med. 1982; 12:871–878. [PubMed: 6961471]
21. Mintz LB, O'Halloran MS. The Eating Attitudes Test:Validation with DSM–IV eating disorder criteria. J Pers Assess. 2000; 74:489–503. [PubMed: 10900574]
22. Harvey JA, Robinson JD. Eating disorders in men: Current considerations. J Clin Psychol Med Settings. 2003; 10:297–306.
23. Irwin JR, Jones LE, Mundo D. Risk perception and victim perception: The judgment of HIV cases. J Behav Decis Making. 1996; 9:1–22.
24. Murray S, Touyz S, Beumont P. Knowledge about eating disorders in the community. Int J Eat Disord. 1990; 9:87–93.
25. O'Hara SK, Smith KC. Presentation of eating disorders in the news media: what are the implications for patient diagnosis and treatment? Patient Educ Couns. 2007; 68:43–51. [PubMed: 17521841]
26. Mondini S, Favaro A, Santonastaso P. Eating disorders and the ideal of feminine beauty in Italian newspapers and magazines. Eur Eat Disord Rev. 1996; 4:112–0.
27. Fairburn CG, Cooper Z, Doll HA, Norman P, O'Connor M. The natural course of bulimia nervosa and binge eating disorder in young women. Arch Gen Psychiatry. 2000; 57(7):659–65. [PubMed: 10891036]
28. Striegel-Moore RH, Leslie D, Petrill SA. One-year use and cost of inpatient and outpatient services among female and male patients with an eating disorder: evidence from a national database of health insurance claims. Int J Eat Disord. 2000; 27:381. [PubMed: 10744844]

Appendix A Eating Disorder Scenarios

1. Mike is a white male athlete with anorexia nervosa. His coach told him that he needed to lose 10 pounds to make the varsity wrestling team.
2. Tom is a white male who lives in central Virginia and enjoys fishing. He has anorexia nervosa. His father also had anorexia when he was younger.
3. Leslie, a white woman who has been involved in ballet since age 4, has anorexia. She feels pressure to stay as thin as the other dancers so she can get good roles in dance productions.
4. Emily is a white woman who has anorexia nervosa. Her older sister also has anorexia. She likes to spend time playing outside with her dog.
5. John, an white male with bulimia nervosa. He comes from a large family and has four brothers. Everyone is into sports. John binges and purges three times a week.
6. Bill, a white male, has had bulimia nervosa since he was 15 and purges frequently. He is majoring in mass communications. Bill is an avid gardener.
7. Julie is an African American woman with bulimia nervosa who enjoys spending her free time outdoors. She bases her self-esteem on her weight and appearance.
8. Diane is a white woman who has bulimia nervosa. She purges several times a day. Diane spends a lot of time exercising and hiking in the mountains.
9. Crystal, an African American woman, was teased about being overweight when she was younger. She dieted excessively and now has anorexia. Crystal likes nature photography.
10. Erin is an African American woman with anorexia nervosa. Her twin sister also has anorexia. They attend the same college and live in the same dorm.
11. Sydney is a white woman with anorexia nervosa. A modeling agency told her that she needed to lose weight before they would consider working with her.
12. Kristen is a white female who works in a book store. She and her mom both have anorexia nervosa. Kristen grew up in an urban area and wants to be a teacher.
13. Angela is an African American woman with bulimia nervosa. She is a fashion major and has always felt that she has to be thin to fit in with the other students.
14. Amanda is an African American woman with bulimia nervosa. Her twin sister also has bulimia. Amanda is an art major who enjoys painting, mostly landscapes.
15. Katie, a white woman with bulimia, was overweight as a child. In high school she joined the cheerleading squad and felt pressure from her friends to be thinner.
16. Mindy is a white woman with bulimia nervosa. Her mother had bulimia as well.

Table 1

Means and Standard Deviations of the Attribute Rating Scale

Descriptive Statistics for Fictional Character Traits	**Likeability**		**Responsibility**		**Similarity**		**Gay/Lesbian**		**Recover**		**Self-control**		**Destructive**	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Gender														
Male	3.38	0.63	3.06	0.80	1.62	0.71	2.62	0.73	2.71	0.75	2.57	0.74	3.48	0.80
Female	3.41	0.55	3.09	0.76	1.85	0.78	2.56	0.72	2.54	0.67	2.59	0.72	3.52	0.73
Ethnicity														
African American	3.37	0.58	3.18	0.81	1.89	0.85	2.58	0.73	2.52	0.69	2.53	0.75	3.55	0.77
White	3.44	0.56	3.02	0.79	1.82	0.78	2.54	0.73	2.55	0.71	2.64	0.75	3.50	0.75
Eating Disorder Subtype														
Anorexia	3.44	0.56	2.86	0.83	1.77	0.76	2.53	0.72	2.59	0.69	2.68	0.76	3.41	0.76
Bulimia	3.37	0.57	3.30	0.75	1.80	0.75	2.61	0.71	2.57	0.69	2.50	0.73	3.61	0.74
Etiology														
Biological	3.48	0.59	2.72	0.88	1.76	0.77	2.57	0.72	2.49	0.77	2.65	0.74	3.37	0.83
Sociocultural	3.37	0.57	3.14	0.88	1.85	0.81	2.51	0.75	2.71	0.73	2.63	0.81	3.50	0.77
Ambiguous	3.34	0.64	3.52	0.85	1.75	0.77	2.66	0.71	2.53	0.75	2.44	0.82	3.73	0.77
Descriptive Statistics for Participant Traits														
Gender														
Male	3.23	0.51	3.11	0.61	1.71	0.74	2.70	0.66	2.88	0.65	2.47	0.51	3.29	0.63
Female	3.47	0.55	3.06	0.79	1.82	0.74	2.52	0.72	2.47	0.64	2.63	0.76	3.59	0.74
Ethnicity														
African American	3.41	0.53	3.25	0.78	1.38	0.51	2.46	0.76	2.62	0.78	2.35	0.72	3.50	0.78
White	3.48	0.58	2.95	0.72	1.93	0.78	2.61	0.66	2.57	0.62	2.69	0.73	3.55	0.70